

Comparison between topographic expression of RADARSAT and DEM in Simpang Pulai to Pos Selim, Malaysia.

ABSTRACT

Radar and digital elevation model had been utilised in many structural studies. The main objective of this study is to compare the RADARSAT and digital elevation model for lineament interpretation which probably represent the main joints or faults along the Simpang Pulai to Pos Selim highway, Malaysia. These joints and faults may influence the instability along the highway. Manual comparison in terms of topographical aspect was undertaken between RADARSAT with 25 m spatial resolution and digital elevation model derived from 20 m contour interval of the topographical map. The previously interpreted lineaments of more than 2 km in the study area was draped over the RADARSAT and digital elevation model to compared whether the lineament concurred with the topographical representation. The interpreted lineaments were derived from Landsat TM of 1990 and 2002, where the DEM had been utilised in the negative lineament determination. It is concluded that the application RADARSAT is not very useful in terms of topographical expression in the structural geological interpretation for the study area compared to DEM derived from contour data. Further work is suggested before any conclusion can be confidently derived.

Keyword: RADARSAT; DEM; Remote sensing; Lineament.